

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

**ROUTE PERMIT FOR CONSTRUCTION OF A HIGH-VOLTAGE TRANSMISSION
LINE AND ASSOCIATED FACILITIES**

IN ST. LOUIS AND CARLTON COUNTIES

**ISSUED TO
GREAT RIVER ENERGY & MINNESOTA POWER
PUC DOCKET NO. ET2, E015/TL-10-1307**

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this route permit is hereby issued to:

GREAT RIVER ENERGY & MINNESOTA POWER

Great River Energy (GRE) and Minnesota Power (MP) are authorized by this route permit to construct the new Savanna 115 kilovolt (kV) Switching Station near Floodwood, Minnesota, and to rebuild approximately 37 total miles of existing 69 kV transmission line to 115 kV specifications in St. Louis and Carlton Counties, Minnesota.

The transmission line and associated facilities shall be built within the route identified in this permit, as portrayed on the official route maps, and in compliance with the all other conditions specified in this permit.

Approved and adopted this 7th day of March, 2012

BY ORDER OF THE COMMISSION

Burl W. Haar,
Executive Secretary



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ROUTE MAPS

Overview Route
HVTL Route Aerial Maps
Goodell & Marlow Alternatives

1 ROUTE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this route permit to Great River Energy and Minnesota Power (Permittees) pursuant to Minnesota Statute 216E.03 and Minnesota Rules 7850. This permit authorizes the Permittees to construct approximately 37 miles of new 115 kV transmission line and associated facilities in St. Louis and Carlton counties, Minnesota and as identified in the attached route permit maps, hereby incorporated into this document.

2 PROJECT DESCRIPTION

The Permittee is authorized to construct a project comprising a rebuild of the existing 69 kV system and associated facilities described as:

- The new Savanna 115 kV Switching Station in Section 32 of Van Buren Township.
- Rebuild approximately seven miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between Lake Country Power's existing Cedar Valley Substation in Cedar Valley Township and the new Savanna Switching Station.
- Rebuild approximately nine miles of existing Great River Energy 69 kV transmission line to single circuit 115 kV between the new Savanna Switching Station and Lake Country Power's existing Gowan Substation in Floodwood Township.
- Rebuild approximately 21 miles of existing Great River Energy 69 kV transmission line to double circuit 115/69 kV between the Lake Country Power Gowan Substation and Great River Energy's existing Cromwell Substation in Kalevala Township.
- Modify the Lake Country Power Cedar Valley Substation and Great River Energy Cromwell Substation to accommodate the 115 kV transmission lines.

This project will result in a new 115 kV line between the proposed Savanna Switching Station and the Cedar Valley Substation, a new 115 kV line between the Savanna Switching Station and the Cromwell Substation, and an upgraded 69 kV line between the Gowan Substation and the Cromwell Substation.

2.1 Project Location

The Savanna Transmission Line project will be located between Cromwell and Cedar Valley in the counties of St. Louis and Carlton, Minnesota. The project would specifically be located in portions of the Kalevala, Eagle, Fine Lakes, Floodwood, Van Buren and Cedar Valley townships

Route	County	Township Name	Township	Range	Sections
Proposed Route	Carlton	Kalevala	47N	20W	4,5
Proposed Route	Carlton	Eagle	48N	20W	33,28, 21, 16, 9,5,4

Proposed Route	Carlton	Cromwell	49N	20W	33,32,29,28, 21,16,9,4,
Proposed Route	St. Louis	Fine Lakes	50N	20W	33,28, 21,16,9,10,3
Proposed Route	St. Louis	Floodwood	51N	20W	35,34,27/26,23,14,11,10,4,3,2
Proposed Route	St. Louis	Van Buren	52N	20W	33/34,32,29,20, 17,18,7,6
Proposed Route	St. Louis	Cedar Valley	53N	21W	36,31

2.2 Associated Facilities and Substations

The proposed project includes a new Savanna 115 kV Switching Station and minor modifications to the LCP Cedar Valley Substation and the Great River Energy Cromwell Substation. Upgrades on the Minnesota Power 9 Line Floodwood Tap will also be required in conjunction with the project to accommodate increased power flows.

Savanna Switching Station

The new Savanna 115 kV Switching Station near Floodwood will be constructed by Minnesota Power. The site consists of 25 acres of land in the NE ¼ of the NE ¼ of Section 32 of Van Buren Township; MP would own all common facilities associated with the switching station (land, fence, etc.). The fenced-in area of the 115 kV switching station will be approximately 250 feet by 300 feet.

The facilities at the Savanna Switching Station will include:

- Four 115 kV, SF6 Circuit Breakers
- One 115kV, 27 MVAR Capacitor Bank
- 115 kV Switches
- Electrical Equipment Enclosure
- Structural Steel
- Bus work and fittings
- SCADA/Relay/Control Equipment
- Conduit
- Grounding

Lake Country Power Cedar Valley Substation

The Cedar Valley Substation was recently rebuilt and can accommodate a 115 kV circuit. LCP will need to change out the substation transformer to allow operation of the substation at 115 kV.

Great River Energy Cromwell Substation

Great River Energy will provide a 115 kV line termination at the existing Cromwell Substation to accommodate the 115 kV line from Savanna.

Minnesota Power 9 Line Floodwood Tap

Once the project is complete, the addition of the Savanna Switching Station and the Savanna to Cromwell 115 kV line will cause approximately 10 miles of Minnesota Power's 115 kV 9 Line Floodwood Tap (9 Line Tap) to become a networked transmission facility. This will create a through-flow path on the 9 Line Tap. In its existing configuration, the 9 Line Tap is a radial line, meaning that the only power flowing on it is that needed to serve the loads in the Floodwood area. When the project is implemented and the 9 Line Tap becomes a network facility, the power flow on the 10 mile segment between the new Savanna Switching Station and the existing 9 Line Tap switches (located near Meadowlands) will increase significantly under certain system conditions. To accommodate the increased power flow, this segment of the 9 Line Tap will need to be upgraded so that it has adequate capacity. The upgrade will involve replacing or modifying some structures to increase conductor clearance, which would increase capacity by allowing the line to operate at a higher thermal limit.

Alternatively, the conductor along this 10 mile segment of the 9 Line Tap could be replaced. Either way, all the work will be done within the existing ROW.

2.3 Structures and Conductors

The majority of the two new 115 kV lines will consist of single-pole wood structures spaced approximately 350 to 400 feet apart. For the single circuit portion of the project (Cedar Valley Substation to Savanna Switching Station and Savanna Switching Station to LCP Gowan Substation), the 115 kV spans will be longer than the existing 69 kV spans, therefore fewer poles will be required. The structures will typically range in height from 60 to 85 feet above ground, depending upon the terrain and environmental constraints (such as highway crossings, river and stream crossings, and required angle structures). The average diameter of the wood structures at ground level is 20 inches.

Small sections of the existing line near the two St. Louis River crossings have distribution underbuild, which would be attached to new 115 kV transmission line structures spaced 250 to 350 feet apart.

H-Frame design structures may be used in areas with rugged topography and where longer spans are required to avoid or minimize impacts to wetlands or waterways. Span lengths average 600 to 800 feet, with 1,000-foot spans possible with certain topography. Structure heights typically range from 60 to 85 feet with taller structures required for exceptionally long spans and in circumstances requiring additional vertical clearance exceeding the National Electrical Safety Code (NESC) and other agency requirements.

The single circuit structures will have three single conductor phase wires and one shield wire, and the double circuit structures will have six single conductor phase wires and one shield wire.

It is anticipated that the phase wires will be 477 thousand circular mil aluminum conductor steel reinforced (ACSR) with seven steel core strands and 26 outer aluminum strands on the 115 kV line between the Cedar Valley Substation and the Savanna Switching Station, and on the upgraded 69 kV line on the 115/69 kV double circuit structures between the LCP Gowan Substation and the Great River Energy Cromwell Substation.

It is anticipated that the phase wires will be 477 thousand circular mil aluminum conductor steel supported (ACSS) with seven steel core strands and 26 outer aluminum strands on both the single circuit and double circuit segments of the 115 kV line from the Savanna Switching Station to the Great River Energy Cromwell Substation.

The shield wire will be 0.528 optical ground wire for all transmission line segments.

3 DESIGNATED ROUTE

The approved route is shown on the route maps attached to this permit and further designated as follows:

On the north end of the project, the first new 115 kV line begins at the Cedar Valley Substation in Section 36 of Cedar Valley Township. The line follows Highway 73 for approximately four miles, goes cross country east $\frac{1}{4}$ mile then south $\frac{1}{2}$ mile to County Road (CR) 732, follows CR 732 for $\frac{3}{4}$ mile, then turns south along CR 192 for approximately two miles then connects into the new Savanna Switching Station. The second new 115 kV line exits the Savanna Switching Station and runs south about $\frac{1}{4}$ mile to County State Aid highway (CSAH) 29, follows CSAH 29 east for one mile, then turns south across the St. Louis River to Hill Road. The line follows Hill Road south for two miles, turns east on CSAH 8 for one mile, then turns south along CR 965 for approximately 3.5 miles, continues cross country for about one mile across the St. Louis River and the Burlington Northern Santa Fe railroad tracks to Hingley Road. It follows Hingley Road for about $\frac{1}{2}$ mile to the LCP Gowan Substation, where double circuit 115/69 kV construction will begin. For this single circuit portion of the project, the spans will be longer and fewer poles will be required.

The second 115 kV line (now on double circuit structures with the upgraded 69 kV line) continues south past the LCP Gowan Substation along Hingley Road for 1.75 miles, turns west along CSAH 86 for one mile, then turns south along Hingley Road again for approximately three miles. The line then goes cross country to the southwest for about $\frac{1}{4}$ mile, goes west along CR 822 for about $\frac{1}{2}$ mile, then turns south along Highway 73 for six miles. Then line turns west for $\frac{1}{2}$ mile along CR 122, turns south for two miles (1.5 miles of which is cross country), then follows Highway 73 again south for five miles. The line turns east for $\frac{1}{4}$ mile along CSAH 4, then turns south for about $\frac{1}{4}$ mile along CR 129 into the Great River Energy Cromwell Substation.

The Savanna to Cromwell line will cross the St. Louis River northeast of Floodwood and north of Gowan in the same locations that the existing 69 kV line presently crosses the river.

3.1 Route Width and Alignment

The designated route width will be 300 feet, centered over the existing transmission line (150 feet either side), except in the portion of the route incorporating the Goodell Alternative (see Section 5.1). In this portion of the route, the 300 foot width will extend north from the centerline of the existing transmission line. This is to facilitate placement of the alignment along the northern ROW of CSAH 86 (Hingeley Road).

The route width and alignment are depicted in the route maps attached to this permit.

A width of 1040 feet in the vicinity of the Savanna Switching Station location is approved to accommodate the lines in and out of the station. This width includes the existing 69 kV line ROW, the entire switching station property, and a 200 foot buffer on the north, east, and south sides of the property. The additional ROW is required to allow for some flexibility in the final design of the switching station and in how the transmission lines enter the station.

These widths will provide the Permittees with flexibility for minor adjustments of the specific alignment or right-of-way to accommodate landowner requests and unforeseen conditions. The final alignment (i.e., permanent and maintained rights-of-way) will be located within this designated route unless otherwise authorized below.

Consequently, this permit anticipates that the actual right-of-way will generally conform to the alignment of the existing 69 kV transmission line, unless changes are requested by individual landowners, unforeseen conditions are encountered, or are otherwise provided for by this permit.

Any alignment modifications within this designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit, and shall be specifically identified and documented in and approved as part of the Plan and Profile submitted pursuant to Section 4.1 of this permit.

Route width variations outside the designated route may be allowed for the permittee to overcome potential site specific constraints. These constraints may arise from any of the following:

- 1) Unforeseen circumstances encountered during the detailed engineering and design process.
- 2) Federal or state agency requirements.
- 3) Existing infrastructure within the transmission line route, including but not limited to roadways, railroads, natural gas and liquid pipelines, high voltage electric transmission lines, or sewer and water lines.
- 4) Planned infrastructure improvements identified by state agencies and local government units (LGUs) and made part of the evidentiary record during the contested case proceeding for this permit.

Any alignment modifications arising from these site specific constraints that would result in right-of-way placement outside the designated route shall be located so as to have comparable overall impacts relative to the factors in Minnesota Rule 7850.4100 as does the alignment identified in this permit and shall also be specifically identified and documented in and approved as part of the plan and profile submitted pursuant to Section 4.1 of this permit.

3.2 Right-of-Way Placement

Where the transmission line route parallels existing highway and other road rights-of-way, the transmission line right-of-way shall occupy and utilize the existing right-of-way to the maximum extent possible, consistent with the criteria in Minnesota Rule 7850.4100, the other requirements of this permit, and for highways under the jurisdiction of the Minnesota Department of Transportation (Mn/DOT), Mn/DOT rules, policies, and procedures for accommodating utilities in trunk highway rights-of-way.

3.3 Right-of-Way Width

The 115 kV transmission line will be built primarily with single pole structures, which will require a 100-foot right-of-way, 50 feet on each side of the transmission line centerline.

4 GENERAL CONDITIONS

The Permittees shall comply with the following general conditions during construction of the transmission line and associated facilities and the life of this permit.

4.1 Plan and Profile

At least 30 calendar days before right-of-way preparation for construction begins on any segment or portion of the project, the permittee shall provide the Commission with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, transmission structure specifications and locations, and restoration for the transmission line. The documentation shall include maps depicting the plan and profile including the right-of-way, alignment, and structures in relation to the route and alignment approved per the permit.

The Permittees may not commence construction until the 30 days has expired or until the Commission has advised the permittee in writing that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the Commission, the permittee shall notify the Commission at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

4.2 Construction Practices

The Permittees shall follow those specific construction practices and material specifications described in the GRE/MP application to the Commission for a route permit, dated February 10, 2011, and as described in the environmental assessment and Findings of Fact, unless this permit establishes a different requirement, in which case this permit shall prevail.

4.2.1 Field Representative

At least 10 days prior to commencing construction, the permittee shall advise the Commission in writing of the person or persons designated to be the field representative for the permittee with the responsibility to oversee compliance with the conditions of this permit during construction.

The field representative's address, phone number, email, and emergency phone number shall be provided to the Commission and shall be made available to affected landowners, residents, public officials and other interested persons. The permittee may change the field representative at any time upon written notice to the Commission.

4.2.2 Local Governments

During construction, the permittee shall minimize any disruption to public services or public utilities. To the extent disruptions to public services occur, these would be temporary and the permittee will work to restore service promptly.

Where any impacts to utilities have the potential to occur, permittee will work with both landowners and local agencies to determine the most appropriate transmission structure placement.

The Permittees shall cooperate with county and city road authorities to develop appropriate signage and traffic management during construction.

4.2.3 Cleanup

All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, including bottles, cans, and paper from construction activities shall be removed on a daily basis.

4.2.4 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minnesota Rule 7030.0200, to ensure nighttime noise level standards will not be exceeded.

4.2.5 Vegetation Removal in the Right-of-Way

The Permittees shall minimize the number of trees to be removed in selecting the right-of-way specifically preserving to the maximum extent practicable windbreaks, shelterbelts, living snow fences and vegetation in areas such as trail crossings, where vegetative screening may minimize aesthetic impacts, to the extent that such actions do not violate sound engineering principles or system reliability criteria.

Tall tree species located within the transmission line right-of-way that endanger the safe and reliable operation of the transmission facility will be removed.

In many cases certain low and slow growing species that do not exceed a mature height of 15 feet can be planted in the right-of-way to blend the difference between the right-of-way and adjacent wooded areas, to the extent that the low growing vegetation that will not pose a threat to the transmission facility or impede construction.

4.2.6 Aesthetics

The Permittees shall consider input pertaining to visual impacts from landowners or land management agencies prior to final location of structures, rights-of-way, and other areas with the potential for visual disturbance. Care shall be used to preserve the natural landscape, minimize tree removal and prevent any unnecessary destruction of the natural surroundings in the vicinity of the project during construction and maintenance. Structures shall be placed at the reasonable distance, consistent with sound engineering principles and system reliability criteria, from intersecting roads, highway, or trail crossings and could cross roads to minimize or avoid impacts.

4.2.7 Erosion Control

The Permittees shall follow standard erosion control measures outlined in Minnesota Pollution Control Agency (MPCA) guidance and best management practices regarding sediment control practice during construction include protecting storm drain inlets, use of silt fences, protecting exposed soil, immediately stabilizing restored soil, controlling temporary soil stockpiles, and controlling vehicle tracking.

The Permittees shall implement reasonable measures to minimize runoff during construction and shall promptly plant or seed, erect sediment control fences (e.g. biorolls, sandbags, and silt fences), apply mulch (e.g. hay or straw) on exposed soils, and/or use erosion control blankets and turf reinforcement mats to provide structural stability to bare surfaces and slopes.

When utilizing seed to establish temporary and permanent vegetative cover on exposed soil, the Permittees shall select specific site characteristic seed, certified to be free of noxious weeds.

Contours shall be graded as required so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate re-vegetation, provide for proper drainage, and prevent erosion. All areas disturbed during construction of the facilities shall be returned to their pre-construction condition.

Where larger areas of one acre or more (substation site) are disturbed or other areas designated by the MPCA, the permittee shall prepare the required Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit from the MPCA.

4.2.8 Wetlands and Water Resources

Structures shall be located to span watercourses, wetlands, and floodplains to the extent practicable and consistent with sound engineering principles. Minimal grading of areas

around pole locations may be required to accommodate construction vehicles and equipment.

The Permittees shall endeavor to access wetlands and riparian areas using the shortest route possible in order to minimize travel through wetland areas and prevent unnecessary impacts wherever possible.

Construction in wetlands and riparian areas shall be scheduled during frozen ground conditions, when practicable. When construction during winter is not possible, construction mats (wooden mats or a composite mat system) shall be used to protect wetland vegetation. All-terrain construction vehicles designed to minimize soil impact in damp areas may also be used.

No staging or stringing set up areas shall be placed within or adjacent to wetlands or water resources, as practicable. The structures shall be assembled on upland areas before they are brought to the site for installation.

Soil excavated from the wetlands and riparian areas shall be contained and not placed back into the wetland or riparian area. The Permittees shall also utilize erosion control methods identified in Section 4.2.7 (Erosion Control), as warranted. Areas disturbed by construction activities shall be restored to pre-construction conditions (soil horizons, contours, vegetation, etc.).

4.2.9 Temporary Work Space

The Permittees shall limit temporary easements to special construction access needs and additional staging or lay-down areas required outside of the authorized right-of-way. Space shall be selected to limit the removal and impacts to vegetation.

Temporary lay down areas outside of the authorized transmission line right-of-way will be obtained from affected landowners through rental agreements and are not provided for in this permit.

Temporary driveways may be constructed between the roadway and the structures to minimize impact by using the shortest route possible. Construction mats may also be used to minimize impacts on access paths and construction areas.

4.2.10 Restoration

The Permittees shall restore the right-of-way, temporary work spaces, access roads, abandoned right-of-way, and other public or private lands affected by construction of the transmission line. Practices to restore areas impacted by construction and maintenance activities are also described in Section 4.2.7 of this permit.

Restoration within the right-of-way must be compatible with the safe operation, maintenance, and inspection of the transmission line.

Within 60 days after completion of all restoration activities, the Permittees shall advise the Commission in writing of the completion of such activities. The Permittees shall compensate landowners for any yard/landscape, crop, soil compaction, drain tile, or other damages that may occur during construction.

4.2.11 Notice of Permit

The Permittees shall inform all employees, contractors, and other persons involved in the transmission line construction of the terms and conditions of this permit.

4.3 Periodic Status Reports

The Permittees shall report to the Commission on progress regarding finalization of the route, design of structures, and construction of the transmission line. The Permittees need not report more frequently than monthly.

4.4 Complaint Procedures

Prior to the start of construction, the Permittees shall submit to the Commission the procedures that will be used to receive and respond to complaints. The procedures shall be in accordance with the requirements set forth in the complaint procedures attached to this permit.

4.5 Notification to Landowners

The Permittees shall provide all affected landowners with a copy of this permit and the complaints procedures at the time of the first contact with the landowners after issuance of this permit. At the time of first contact, the Permittees shall also provide all affected landowners with a copy of the *Landowner Guide to Easements* publication provided by the Department of Commerce.

The Permittees shall contact landowners prior to entering the property or conducting maintenance along the route. The Permittees shall avoid construction and maintenance practices, particularly the use of fertilizer, herbicides or other pesticides, that are inconsistent with the landowner's or tenant's use of the land (See also, Section 4.2.5).

The Permittees shall work with landowners to locate the high-voltage transmission lines to minimize the loss of agricultural land, forest, and wetlands, and to avoid homes and farmsteads.

4.6 Completion of Construction

4.6.1 Notification to Commission

At least three days before the line is to be placed into service, the Permittees shall notify the Commission of the date on which the line will be placed into service and the date on which construction was complete.

4.6.2 As-Builts

Within 60 days after completion of construction, the Permittees shall submit copies of all the final as-built plans and specifications developed during the project.

4.6.3 GPS Data

Within 60 days after completion of construction, the Permittees shall submit to the Commission, in the format requested by the Commission, geo-spatial information (ArcGIS compatible map files, GPS coordinates, associated database of characteristics, etc.) for all structures associated with the transmission lines, each switch, and each substation connected.

4.7 **Electrical Performance Standards.**

4.7.1 Grounding

The Permittees shall design, construct, and operate the transmission line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes (mA), root mean square (rms) alternating current between the ground and any non-stationary object within the right-of-way, including but not limited to large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the induced short-circuit current between ground and the object so as not to exceed one mA rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the NESC. The permittee shall address and rectify any induced current problems that arise during transmission line operation.

4.7.2 Electric Field

The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

4.7.3 Interference with Communication Devices

If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the transmission line, the permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

4.8 **Other Requirements.**

4.8.1 Applicable Codes

The Permittees shall comply with applicable requirements of the NESC including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of-way

widths, erecting power poles, and stringing of transmission line conductors. The transmission line facility shall also meet the NERC reliability standards.

4.8.2 Other Permits

The Permittees shall comply with all applicable state rules and statutes. The Permittees shall obtain all required local, state and federal permits for the project and comply with the conditions of these permits. A list of the required permits is included in the route permit application and the environmental assessment. The Permittees shall submit a copy of such permits to the Commission upon request.

4.8.3 Pre-emption

Pursuant to Minnesota Statutes 216E.10, subdivisions 1 and 2, this route permit shall be the sole route approval required to be obtained by the Permittees and this permit shall supersede and preempt all zoning, building, or land use rules, regulations, or ordinances promulgated by regional, county, local and special purpose government.

4.8.4 Delay in Construction

If the Permittees have not commenced construction or improvement of the route within four years after the date of issuance of this permit, the Commission shall consider suspension of the permit in accordance with Minnesota Rule 7850.4700.

5 SPECIAL CONDITIONS

The Permittees shall provide a report to the Commission as part of the plan and profile submission that describes the actions taken and mitigative measures developed regarding the project and the following Special Conditions.

5.1 Goodell Alternative Route Segment

The Goodell Alternative Route Segment is an approximately one mile segment of the route along CSAH 86 (Hingeley Road) where the road runs west from the intersection of Norlund Road (Township Road 5004) in Fine Lakes Township. The Goodell Alternative Route Segment places the 115/69 kV transmission line ROW so that it follows the north side of CSAH 86 (between the areas generally defined by GRE pole number 240 east to pole number 254). Rather than being centered on the existing transmission line, the 300 foot route width extends north from the existing transmission line ROW in this portion of the route.

5.2 Marlow Alternative Alignment

The Marlow Alternative Alignment is an approximately 2 mile portion of the route along County Road 965 (Hingeley Road) from the southern terminus of Hingeley Road, northward. The Marlow Alternative Alignment places the new transmission line ROW so that it follows the east side of Hingeley Road in this portion of the route (between the areas generally defined by GRE pole number 334 south to pole number 302).

5.3 Archaeological and Historic Resources

The Permittees shall consult with the Minnesota State Historic Preservation Office (SHPO) once detailed survey and acquisition work has been performed, and prior to the submittal of the final plan and profile to determine the need and extend of survey work that may be required for the project.

The Permittees shall make every effort to avoid impacts to identified archaeological and historic resources when installing the high-voltage transmission line on the approved route. In the event that a resource is encountered, the SHPO should be contacted and consulted; the nature of the resource should be identified; and a determination should be made on the eligibility for listing in the National Register of Historic Places. Where feasible, avoidance of the resource is required.

5.4 Avian Mitigation

The Permittees' standard transmission design shall incorporate adequate spacing of conductor(s) and grounding devices in accordance with Avian Power Line Interaction Committee standards to eliminate the risk of electrocution to raptors with larger wingspans that may simultaneously come in contact with a conductor and grounding devices.

The Permittees shall consult with the MnDNR on the need, type and placement of Swan Flight Diverters (SFDs) along the approved route, prior to the Permittee's submittal of the final Plan and Profile to the Commission. The consultation, at a minimum, shall include providing the MnDNR with GIS shapefiles illustrating the proposed location of SFDs along the approved route, and provide the MnDNR at least 30 days to review and comment.

6 PERMIT AMENDMENT

The permit may be amended at any time by the Commission. Any person may request an amendment of the conditions of this permit by submitting a request to the Commission in writing describing the amendment sought and the reasons for the amendment. The Commission will mail notice of receipt of the request to the permittee. The Commission may amend the conditions after affording the permittee and interested persons such process as is required.

7 TRANSFER OF PERMIT

The Permittees may request at any time that the Commission transfer this permit to another person or entity. The Permittees shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer.

The person to whom the permit is to be transferred shall provide the Commission with such information as the Commission shall require to determine whether the new Permittees can comply with the conditions of the permit. The Commission may authorize transfer of the permit after affording the Permittees, the new permittee, and interested persons such process as is required.

8 REVOCATION OR SUSPENSION OF THE PERMIT

The Commission may initiate action to revoke or suspend this permit at any time. The Commission shall act in accordance with the requirements of Minnesota Rule 7850.5100 to revoke or suspend the permit.

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**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE
FOR PERMITTED ENERGY FACILITIES**

1. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

2. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

3. Definitions

Compliance Filing – A sending (filing) of information to the Commission, where the information is required by a Commission site or route permit.

4. Responsibilities

- A) The Permittees shall eFile all compliance filings with Dr. Burl Haar, Executive Secretary, Public Utilities Commission, through the Department of Commerce (DOC) eDocket system. The system is located on the DOC website: <https://www.edockets.state.mn.us/EFiling/home.jsp>

General instructions are provided on the website. Permittees must register on the website to eFile documents.

- B) All filings must have a cover sheet that includes:
- 1) Date
 - 2) Name of submitter / Permittees
 - 3) Type of Permit (Site or Route)
 - 4) Project Location
 - 5) Project Docket Number
 - 6) Permit Section Under Which the Filing is Made
 - 7) Short Description of the Filing

Filings that are graphic intensive (e.g., maps, plan and profile) must, in addition to being eFiled, be submitted as paper copies and on CD. Copies and CDs should be sent to: 1) Dr. Burl W. Haar, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN, 55101-2147, and 2) Department of Commerce, Energy Facility Permitting, 85 7th Place East, Suite 500, St. Paul, MN, 55101-2198.

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PERMIT COMPLIANCE FILINGS¹

PERMITTEES: Great River Energy/Minnesota Power
PERMIT TYPE: HVTL Route Permit
PROJECT LOCATION: St. Louis and Calton counties
PUC DOCKET NUMBER: ET2, E015/TL-10-1307

Filing Number	Permit Section	Description	Due Date
1	4.2.1	Plan and profile of right-of-way	30 days before ROW preparation or construction
2	4.1	Contact information for field representative	10 days prior to construction
3	4.3	Periodic Status Reports	monthly
4	4.6.1	Notice of completion and date of placement in service	Three days prior to energizing
5	4.6.2	Provide As-built and GPS information	Within 60 days of construction
6	5.3	Provide documentation of consultation with MnDNR, on need, type and location of SFD along the approved route.	Prior to submittal of the Plan and profile of right-of-way (Item 1)

¹ This compilation of permit compliance filings is provided for the convenience of the permittees and the PUC. However, it is not a substitute for the permit; the language of the permit controls.

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**MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
HIGH VOLTAGE TRANSMISSION LINES**

A. Purpose:

To establish a uniform and timely method of reporting complaints received by the Permittees concerning Permit conditions for site preparation, construction, cleanup and restoration, operation and resolution of such complaints.

B. Scope:

This document describes Complaint reporting procedures and frequency.

C. Applicability:

The procedures shall be used for all complaints received by the Permittees and all complaints received by the Commission under Minn. Rule 7829.1500 or 7829.1700 relevant to this Permit.

D. Definitions:

Complaint: A verbal or written statement presented to the Permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other HVTL and associated facilities route permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written Complaint alleging a violation of a specific Route Permit condition that, if substantiated, could result in Permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A Complaint which, despite the good faith efforts of the Permittees and a person(s), remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing:

1. The Permittees shall document all Complaints by maintaining a record of all applicable information concerning the Complaint, including the following:

- a. Name of complainant, address, phone number, and e-mail address.
 - b. Precise property description or parcel number.
 - c. Name of Permittees representative receiving Complaint and date of receipt.
 - d. Nature of Complaint and the applicable Route Permit conditions(s).
 - e. Activities undertaken to resolve the Complaint.
 - f. Final disposition of the Complaint.
2. The Permittees shall designate an individual to summarize Complaints for substantial to the Commission. This person's name, phone number and e-mail address shall accompany all complaint submittals.
3. A Person presenting the Complaint should to the extent possible, include the following information in their communications:
- a. Name, address, phone number, and e-mail address.
 - b. Date
 - c. Tract or parcel
 - d. Whether the complaint relates to (1) a Route Permit matter, (2) a HVTL and associated facility issue, or (3) a compliance issue.

F. Reporting Requirements:

The Permittees shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to HVTL Permit Compliance, 1-800-657-3794, or by e-mail to: DOC.energypermitcompliance@state.mn.us, or. Voice messages are acceptable.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be Filed to Dr. Burl W. Haar, Executive Secretary, Public Utilities Commission, using the Minnesota Department of Commerce eDocket system (see eFiling instructions attached to this permit).

If no Complaints were received during the preceding month, the Permittees shall submit (eFile) a summary indicating that no complaints were received.

G. Complaints Received by the Commission or DOC:

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the Permittees.

H. Commission Process for Unresolved Complaints:

Initial Screening: Commission staff shall perform an initial evaluation of unresolved Complaints submitted to the Commission. Complaints raising substantial HVTL Route Permit issues shall be processed and resolved by the Commission. Staff shall notify Permittees and appropriate person(s) if it determines that the Complaint is a Substantial Complaint. With respect to such Complaints, each party shall submit a written summary of its position to the Commission no later than ten days after receipt of the Staff notification. Staff shall present Briefing Papers to the Commission, which shall resolve the Complaint within twenty days of submission of the Briefing Papers.

I. Permittees Contacts for Complaints:

Mailing Address: Complaints filed by mail shall be sent to:

ATTN: Ms. Carole L. Schmidt
Supervisor, Transmission Permitting and Compliance
Great River Energy
12300 Elm Creek Blvd.,
Maple Grove, MN 55369

Tel: (763) 445-5214

Email: cschmidt@grenergy.com

Mailing Address: Complaints filed by mail shall be sent to:

ATTN: Mr. Dan McCourtney
Environmental Compliance Specialist II
Minnesota Power
30 West Superior Street
Duluth, MN 55802

Tel: (218) 355-3515

Email: dmccourtney@allete.com

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HVTL ROUTE MAPS